BSIT Student Interns at Department of Justice

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By Patty Snellings

Following in the footsteps of DNA analysis, computer forensics is becoming an essential tool for criminal investigators and prosecutors. And George Mason senior Ajay Miglani, a student in the Bachelor of Science in Information Technology (BSIT) degree program in the School of Information Technology and Engineering, is working on the front lines of this emerging field.

Miglani is one of three students selected from universities in the Washington, D.C., area to intern this semester at the Criminal Division of the U.S. Department of Justice (DOJ), working in the newly created High Technology Investigative Unit of the Child Exploitation and Obscenity Section. The new unit provides computer forensics expertise to 15 trial attorneys who prosecute federal cases involving the sexual exploitation of children and violation of federal obscenity laws.

"I was interested in this opportunity because the entire concept of the assignment seemed so exciting and intriguing," Miglani says. "I knew that the work would be interesting as well as immensely related to what I hope to pursue once I graduate, which is a career in information security." Adding that he sees this internship as a large step toward his career goals, Miglani also is interested in gaining a better understanding of how vital information technology is to government.

Computer forensics involves investigation and analysis of computer evidence that can be used to re-create a crime. Experts use their skills to locate and recover deleted or hidden files; access protected or encrypted files; and analyze data to identify file uploads or downloads, Internet searches, and e-mail activity.

"We need interns to help with the volume of work generated within the unit, and we want to expose students to the field of computer forensics," says DOJ computer forensics specialist Lam Nguyen, who oversees the interns' work. "There is a shortage of qualified workers, and we hope to encourage students with a broad range of IT skills to enter careers in law enforcement."

Nguyen explains that the interns will "roll up their sleeves and get their hands dirty." Assignments will involve working with federal prosecutors in the forensic analysis of cases. "For example, the evidence in one case includes 15,000 e-mails that need to be reviewed," he says.

Research is another critical area the interns will explore. "New software hits the market every day," Nguyen points out, "and it's crucial that we stay on the cutting edge of what's out there." Building computers from individual components is one method the interns will use to determine how hardware functions. They will also examine software to learn where evidence may reside.

"I'm very excited about having Ajay participate in this pilot internship program," says Anne Marchant, assistant dean for undergraduate IT education. "We are hopeful that this may lead to other opportunities for our students within the Department of Justice." Discussions at the National IT Deans Meeting held recently in Washington, D.C., indicate that IT career opportunities in law enforcement and computer forensics are increasing, she adds.

More than 600 students are enrolled in the BSIT degree program, which is one of George Mason's fastest growing areas of study. It prepares students for careers in web site design and administration, database administration, network and security engineering, software testing, and technical writing, while emphasizing technical and business skills and writing and oral communication skills. BSIT graduates may go on to pursue master's degrees in telecommunications, information security assurance, information systems, or e-commerce.

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